

What is claimed is:

1. A light-receiving circuit capable of compensating a temperature dependence of a light-receiving device, comprising:

5 a bias supply circuit having an input and an output, said output outputting a bias voltage to said light-receiving device;

a voltage divider having a division ratio, said voltage divider receiving said bias voltage output from said bias supply circuit, dividing said bias voltage based on said division ratio and feeding back said divided bias voltage to said
10 input of said bias supply circuit; and

a temperature compensation circuit for adjusting said division ratio of said voltage divider so as to compensate said temperature dependence of said light-receiving device.

15 2. The light-receiving circuit according to claim 1, wherein said temperature compensation circuit adjusts said division ratio as a linear function to temperatures.

3. The light-receiving circuit according to claim 1, wherein said
20 temperature compensation circuit further comprises

a differential amplifier having an inverting input, a non-inverting input and an output, said differential amplifier operating in an inverting mode,

a coupling resistor for coupling said output of said differential amplifier to said input of said bias supply circuit, and

25 a temperature-sensing resistor connected between said inverting input and said output of said differential amplifier,

wherein said temperature-sensing resistor senses a temperature of said light-receiving device.

4. The light-receiving circuit according to claim 3, wherein said
5 temperature-sensing resistor has a positive temperature co-efficient.

5. The light-receiving circuit according to claim 4, wherein said temperature co-efficient is greater than 1000 ppm/°C.

10 6. The light-receiving circuit according to claim 3, wherein said temperature compensation circuit further includes
a first input coupled to said inverting input of said differential amplifier thorough a first resistor,

a second input coupled to said non-inverting input of said differential
15 amplifier,

wherein a first signal for determining said bias voltage is inputted to said first input, and a second signal for compensating said temperature co-efficient of said light-receiving device superposed on said first signal is inputted to said second input.

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7. The light-receiving circuit according to claim 6, further includes
a thermistor for monitoring said temperature of said light-receiving device, said thermistor outputting a sensing signal corresponding to said temperature of said light-receiving device, and

25 a microprocessor for receiving said sensing signal and for outputting said first signal and said second signal to said temperature compensation circuit.

8. The light-receiving circuit according to claim 7, wherein said
microprocessor includes a first digital-to-analog converter for outputting said first
signal and a second digital-to-analog converter for outputting said superposed
5 first and second signals.

9. The light-receiving circuit according to claim 3, wherein said
differential amplifier is an operational amplifier.

10 10. The light-receiving circuit according to claim 1, wherein said voltage
divider includes a first resistor and a second resistor connected to said first
resistor in series, one terminal of said second resistor being connected to said
output of said bias supply circuit and the other terminal of said second resistor
being connected to one terminal of said first resistor and said input of said bias
15 supply circuit, the other terminal of said first resistor being grounded, and
wherein said division ratio is determined by a ratio of said first resistor to
a sum of said first resistor and said second resistor.

11. The light-receiving circuit according to claim 1, wherein said light-
20 receiving device is an avalanche photodiode.